

Columbia University
Dept. Zoology

14 Nov. 1945

My dear Dr. Lampen,

I hope my requests for the pyrimidine-purine strains did not embarrass you; I misunderstood what you told me about them at the Protein conference. I hope that you will not think me unappreciative of the help that you have given us, and I can assure you that I do not want to press you for a premature distribution of these mutants.

On the basis of some studies published by Hitchings, I have been doing a few experiments with 'Hydroxy-uracil (isobarbituric ac.)' on wild type E coli (ATCC 8532). These may be of interest to you:

1. The drug (in the medium used by Tatum & Gray) inhibits E coli, primarily by an increase in the lag-time. This is quite variable from expt to expt however.
2. This long lag effect is reversed by thymine, and by uracil.
3. Uracil, but not thymine, by itself, shortens the lag of this wild type E coli in this medium. The relationships of 5-hydroxyuracil to pyrimidines may be useful to you.

In re PAB, may I enquire how you determined contamination by it of your methionine?

I should also like to repeat the suggestion that a cross-feeding experiment be attempted. You would inoculate the same tube with Pab-less E coli and Neurospora, prime it with a small amount of PAB, and a ~~mutual~~ symbiotic growth of the two would indicate that different steps of the synthesis are blocked in the two mutants.

If you do not have it, I should be happy to send you a transfer of N. crassa 1633 (PAB), which has of course been published for some time.

While my recent separation from the Navy (with the termination of the V-12 program) puts my ability to continue this research in a certain doubt, I shall be delighted to keep you informed of our results.

Very sincerely yours,

Joshua Lederberg.